UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,295	02/13/2004	Joshua T. Goodman	MS306896.1	7423

27195   7590   11/30/2007
AMIN. TUROCY & CALVIN, LLP
24TH FLOOR, NATIONAL CITY CENTER
1900 EAST NINTH STREET
CLEVELAND, OH 44114

EXAMINER
TRAN, PHILIP B

ART UNIT	PAPER NUMBER
2155	

NOTIFICATION DATE	DELIVERY MODE
11/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket1@thepatentattorneys.com
hholmes@thepatentattorneys.com
osteuball@thepatentattorneys.com

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
Office Action Summary		10/779,295	GOODMAN ET AL.
		Examiner	Art Unit	
		Philip B. Tran	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 August 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-42</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-42</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/16/2007</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

Response to Amendment

1.   This is in response to an amendment filed on 8/29/2007. Claims 1, 30, 35, 39

and 42 have been amended. Therefore, claims 1-42 are pending for further

examination.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

3.   Claims 1-29 and 39-42 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

It appears that claims 1, 39 and 42 would reasonably be interpreted by one of

ordinary skill as a system of software per se, failing to fall within a statutory category of

invention. A computer implemented system as amended does not mean a hardware

system. As such, a software program code **alone** is not a machine, and it is clearly not

a process, manufacture nor composition of matter. Also, claims 2-29 and 40-41 do not

resolve the deficiencies of their parent claims. Thus, claims 1-29 and 39-42 are not

limited to statutory subject matter and are therefore nonstatutory.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-5, 8-12 and 16-42 are rejected under 35 U.S.C. 102(e) as being

anticipated by Bandini et al (Hereafter, Bandini), U.S. Pat. No. 7,117,358.

Regarding claim 1, Bandini teaches a computer implemented system that

facilitates classifying messages in connection with spam prevention (= filtering e-mail

messages to identify SPAM messages) [see Abstract and Col. 1, Lines 30-41],

comprising:

a component that receives a set of the messages (= intercepting messages) [see

Figs. 2-3];

a first classification component that identifies a subset of the messages as SPAM

or flagged for further analysis, and temporarily delays further classification of the subset

of messages (= filtering messages by comparing messages to data in SPAM database

and performing quarantine/initiate further review which is inherent indicating of a

temporary delay period) [see Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35 and Col. 7,

Lines 34-58]; and

a second classification component that after a determined delay period classifies

the subset of messages (= blocking and adding SPAM message to database or

forwarding clean message to e-mail server, and examining borderline message further

with additional evaluation for determining whether the message is a SPAM message)

[see Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35] based at least in part on one or more

learning techniques that are employed to receive additional data associated with the

subset of messages during the determined delay period (= prompting the users for

further information (i.e., learning technique) about the message before adding the

message data to the SPAM database) [see Col. 7, Lines 34-58].

Regarding claims 2-3, Bandini further teaches the system of claim 1, the second

classification component identifying some of the subset of messages as good based on

a lack of sufficient new negative information and identifying some of the subset of

messages as good based on new positive information other than a close match to a

good message [see Figs. 2-3 and Col. 4, Line 5 to Col. 6, Line 27].

Regarding claim 4, Bandini further teaches the system of claim 1, the messages

are classified as spam or flagged or delayed based on a lack of information [see

Abstract and Figs. 2-3].

Regarding claim 5, Bandini further teaches the system of claim 1, the messages

are reclassified based on updated information from a machine learning spam filter [see

Fig. 4].

Regarding claim 8, Bandini further teaches the system of claim 2, the lack of

sufficient new negative information comprises information from polling users about at

least a subset of messages [see Col. 4, Lines 11-67].

Regarding claim 9, Bandini further teaches the system of claim 2, the lack of sufficient new negative information comprises a low volume of similar messages [see Col. 7, Line 34 to Col. 8, Line 19].

Regarding claims 10-11, Bandini further teaches the system of claim 8, the messages are classified as similar based on the sender's identity and the sender's identity is classified based on his IP address [see Col. 5, Line 41 to Col. 6, Line 12].

Regarding claim 12, Bandini further teaches the system of claim 8, the similarity of messages is based on the URLs contained in the messages [see Col. 5, Lines 20-51].

Regarding claim 16, Bandini further teaches the system of claim 1, further comprising a feedback component that receives information relating to the first and/or second classification component(s)', and employs the information in connection with training a spam filter or populating a spam list [see Figs. 3-4].

Regarding claim 17, Bandini further teaches the system of claim 1, wherein the messages comprise at least one of: electronic mail (e-mail) and messages [see Abstract and Col. 3, Lines 29-50].

Regarding claim 18, Bandini further teaches the system of claim 1, wherein the component that receives a set of the messages is any one of an e-mail server, a message server, and client e-mail software [see Col. 3, Lines 29-50].

Claims 19-21 are rejected under the same rationale set forth above to claim 1.

Regarding claim 22, Bandini further teaches the system of claim 1, further comprising a quarantine component that quarantines the subset of messages based at least in part upon identification as flagged for further analysis by the first classification component [see Figs. 2-4].

Regarding claims 23-24, Bandini further teaches the system of claim 1, the quarantining effected via placing the subset of messages in a folder separate from other messages and the folder is visible or invisible to a user [see Fig. 2].

Regarding claim 25, Bandini further teaches the system of claim 1, further comprising an identification component that identifies a source associated with a high occurrence of the subset of messages [see Col. 7, Line 10 to Col. 8, Line 36].

Regarding claim 26, Bandini further teaches the system of claim 1, further comprising a time-stamp component that stamps at least one of an original arrival date

on the message and a release date when classification of the message resumes [see Col. 5, Lines 1-19].

Regarding claim 27, Bandini further teaches the system of claim 1, the subset of messages excludes at least one of messages from senders on safelists, messages readily identified and classified as spam, messages readily identified and classified as good [see Abstract and Figs. 2-4].

Regarding claims 28-29, Bandini further teaches the system of 1, the first classification component determines length of delay before classification of the subset of messages is performed and the length of delay is based at least in part upon at least one of the following: amount of time until a next scheduled filter update; amount of time until download of new or updated filter; and spam probability score assigned to respective messages in the subset (= performing quarantine/initiate further review which is inherent indicating of a temporary delay period) [see Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35 and Col. 7, Lines 34-58].

Regarding claim 30, Bandini teaches a method for classifying messages, comprising: receiving a set of messages to classify; and based on lack of sufficient information, temporarily delaying classification on at least a subset of the messages as either spam or good or initially classifying the subset of messages as untrustworthy or

suspicious [see Abstract and Figs. 2-4 and Col. 3, Line 51 to Col. 4, Line 67 and Col. 7,

Line 10 to Col. 8, Line 36].

Regarding claim 31, Bandini further teaches the method of claim 30, further

comprising a machine learning filter trained to determine the likelihood of quarantining

aiding a correct eventual classification [see Figs. 2-4].

Regarding claim 32, Bandini further teaches the method of claim 30, further

comprising resuming classification when at least one of the following occurs: a

quarantine period elapses; and additional information about the subset of messages

has been obtained to facilitate classification of the respective messages in the subset as

either spam or good [see Abstract and Figs. 2-4].

Regarding claim 33, Bandini further teaches the method of claim 30, the subset

of messages excluding messages that is readily classified as spam or good or is from

senders on a safelist [see Abstract and Figs. 2-4].

Regarding claim 34, Bandini further teaches the method of claim 30, temporarily

delaying classification of the message when based at least in part upon at least one of

the following: sender's IP address on the message has not been seen before; sender's

domain has not been seen before; sender's domain lacks a reverse IP address; a

forward lookup on the sender's domain does not at least approximately match the

sender's IP address; the message comprises at least one of an embedded domain name, an embedded macro, and an executable file; the message comprises conflicting evidence of good and spam messages; the message originates from a location associated with spam; the message is written in a language associated with spam; the message comprises primarily an image; and the message comprises HTML [see Col. 5, Line 41 to Col. 6, Line 12].

Regarding claims 35-38, Bandini further teaches the method of claim 30, further comprising delivering at least a subset of suspicious messages and the subset of suspicious messages is delivered to their respective intended recipients and their actions facilitate determining whether the subset of messages is spam or good and the subset of messages for which feedback is sought is a fixed percentage of messages or a fixed quantity of messages per sender that are temporarily delayed from classification and the subset of messages for which feedback is sought is allowed to get through without classification as either spam or good to facilitate learning more about the messages [see Figs. 2-4 and Col. 7, Line 59 to Col. 8, Line 19].

Regarding claim 39, Bandini teaches an API that facilitates classifying messages by quarantining comprising: calculating a spam probability score for incoming messages; quarantining at least a subset of messages based at least in part upon their respective spam probability scores; and recommending a quarantine time [see Figs. 2-4 and Col. 3, Line 51 to Col. 4, Line 67 and Col. 7, Line 10 to Col. 8, Line 36].

Regarding claim 40, Bandini further teaches the API of claim 39, further

comprising quarantining at least a subset of messages until the next filter download, at

which time the filter determines whether to continue quarantining or resume

classification of the messages; and repeating until a final classification of either spam or

good is made [see Col. 3, Line 51 to Col. 4, Line 67 and Col. 7, Line 10 to Col. 8, Line

36].

Regarding claim 41, Bandini further teaches the API of claim 39, further

comprising communicating between server and client that server filter(s) has

quarantined the respective message for a time period; and reducing a client filter

quarantine time [see Figs. 2-4].

Claim 42 is rejected under the same rationale set forth above to claim 30.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 6-7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Bandini et al (Hereafter, Bandini), U.S. Pat. No. 7,117,358 in view of Lin, U.S. Pat.

No. 7,051,077.

Regarding claims 6-7, Bandini does not explicitly teach the system of claim 2,

wherein the lack of sufficient new negative information comprises the lack of

appearance of similar messages in honeypots and wherein the lack of sufficient new

negative information comprises a lack of user complaints on similar information.

However, it would have been obvious to one of skilled in the art to use honeypots that

classify spam by using dummy e-mail addresses or fake recipients to attract spam and

based on the user complaints on similar information to determine the probability that a

new e-mail message is either spam or non-spam message.

Regarding claims 13-15, Bandini further teaches blocking the spam message

[see Figs. 2-4]. Bandini does not explicitly teach the system of claim 1, messages

initially classified as spam are deleted based on new information and the spam is

permanently deleted and the spam is moved to a deleted messages folder. However, it

would have been obvious to one of skilled in the art to remove the messages classified

as spam messages by placing them in a deleted folder.

Response to Arguments

8.   Applicant's arguments have been fully considered but they are not persuasive

because of the following reasons:

A/ Applicants argue that rejection under 35 U.S.C. 101 should be withdrawn because software code alone is statutory subject matter [see Remark on Pages 9-11].

The examiner respectfully submits that claims 1-29 and 39-42 are still rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It appears that claims 1, 39 and 42 would reasonably be interpreted by one of ordinary skill as a system of software per se, failing to fall within a statutory category of invention. A computer implemented system as amended does not mean a hardware system. As such, a software program code **alone** is not a machine, and it is clearly not a process, manufacture nor composition of matter. Also, claims 2-29 and 40-41 do not resolve the deficiencies of their parent claims. Thus, claims 1-29 and 39-42 are not limited to statutory subject matter and are therefore nonstatutory.

B/ Applicants argue that Badini et al (hereafter, Bandini) does not disclose or suggest each and every aspect set forth in the subject claims, especially classification of a subset of messages based at least in part on one or more learning techniques that are employed to receive additional data associated with the subset of messages during the determined delay period [see Remark on Pages 11-13].

The examiner respectfully disagrees. The examiner respectfully submits that Bandini teaches a computer implemented system that facilitates classifying messages in connection with spam prevention such as filtering e-mail messages to identify SPAM messages [see Bandini, Abstract and Col. 1, Lines 30-41], comprising a component that receives a set of the messages. That is, Bandini discloses intercepting messages [see

Bandini, Figs. 2-3]. In addition, Bandini further teaches a first classification component that identifies a subset of the messages as SPAM or flagged for further analysis, and temporarily delays further classification of the subset of messages. For example, Bandini discloses filtering messages by comparing messages to data in SPAM database and performing quarantine/initiate further review which is inherent indicating of a temporary delay period [see Bandini, Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35 and Col. 7, Lines 34-58].

Moreover, Bandini further teaches a second classification component that after a determined delay period classifies the subset of messages. For example, Bandini discloses blocking and adding SPAM message to database or forwarding clean message to e-mail server, and examining borderline message further with additional evaluation for determining whether the message is a SPAM message [see Bandini, Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35]. Also, Bandini further teaches classifying the subset of messages based at least in part on one or more learning techniques that are employed to receive additional data associated with the subset of messages during the determined delay period. For example, Bandini discloses prompting the users for further information (i.e., learning technique) about the message before adding the message data to the SPAM database [see Bandini, Col. 7, Lines 34-58].

C/ Applicants argue that Bandini et al (hereafter, Bandini) alone or in combination with Lin does not teach or suggest each and every aspect of the subject claims [see Remark on Pages 13-14].

The examiner respectfully disagrees. *In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.* See **In re Keller, 642F. 2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986)**. Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as shown above.

As shown above, Bandini discloses filtering messages by comparing messages to data in SPAM database and performing quarantine/initiate further review which is inherent indicating of a temporary delay period [see Bandini, Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35 and Col. 7, Lines 34-58]. Bandini further discloses blocking and adding SPAM message to database or forwarding clean message to e-mail server, and examining borderline message further with additional evaluation for determining whether the message is a SPAM message [see Bandini, Fig. 2 and Col. 3, Line 52 to Col. 4, Line 35]. Also, Bandini further teaches classifying the subset of messages based at least in part on one or more learning techniques that are employed to receive additional data associated with the subset of messages during the determined delay period. For example, Bandini discloses prompting the users for further information (i.e., learning technique) about the message before adding the message data to the SPAM database [see Bandini, Col. 7, Lines 34-58].

Bandini does not explicitly teach the system wherein the lack of sufficient new negative information comprises the lack of appearance of similar messages in

honeypots and wherein the lack of sufficient new negative information comprises a lack of user complaints on similar information. However, it would have been obvious to one of skilled in the art to use honeypots (as disclosed by Lin) that classify spam by using dummy e-mail addresses or fake recipients to attract spam and based on the user complaints on similar information to determine the probability that a new e-mail message is either spam or non-spam message.

Therefore, the examiner asserts that the cited prior arts teach or suggest the subject matter recited in independent claims. Dependent claims are rejected at least by virtue of their dependency on independent claims and by other reasons set forth above. Accordingly, claims 1-42 are respectfully rejected as shown above.

Conclusion

9.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A SHORTENED STATUTORY PERIOD FOR REPLY TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE MAILING DATE OF THIS ACTION. IN THE EVENT A FIRST REPLY IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CAR 1.136(A) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT, HOWEVER, WILL THE STATUTORY PERIOD FOR REPLY EXPIRE LATER THAN SIX MONTHS FROM THE MAILING DATE OF THIS FINAL ACTION.

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (571) 272-3991. The Group fax phone number is (571) 273-8300. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar, can be reached on (571) 272-4006.

11.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PHILIP TRAN
PRIMARY EXAMINER
Art Unit 2155
November 23, 2007